# THE JOHNSON COMPANY, INC.

### Environmental Sciences and Engineering

April 10, 1995

Mr. Matthew Moran
Hazardous Materials Management Division
Department of Environmental Conservation
103 South Main Street
Waterbury, Vermont 05671-0404

Re:

Additional Site Investigation and Groundwater Monitoring for Former Korner Pocket Property, Rutland, Vermont.

DEC Site #94-1727.

JCO #1-0530-6.

Dear Matt:

On March 14, 1995, The Johnson Company collected an additional round of groundwater samples at the former Korner Pocket facility (the Site) and conducted photoionization detector (PID) screening of several nearby basements for the presence of volatile organic compound (VOC) vapors.

The Johnson Company was retained by East Mountain Property Management Group (EMPMG) in October 1994 to perform a Phase II Environmental Site Assessment (ESA) and a property history review of the former Korner Pocket property located on State Street in Rutland, Vermont. Results of this work indicated that the Site was formerly operated as a gasoline station and an auto body repair shop until its most recent use as a bar. A groundwater investigation at the Site revealed that groundwater in the surficial aquifer beneath the Site is contaminated with several petroleum related VOCs. VOC concentrations for some compounds are above Vermont Groundwater Enforcement Standards. A complete discussion of the work performed to-date at the Site is included in The Johnson Company's report, Phase II Environmental Site Assessment and Property History Review, Former Korner Pocket Property, dated November 1994.

Basements at Garrows Store, northeast of the Site across the intersection of State and Baxter Streets; Allied Automotive Parts, east of the Site across Baxter Street; and Sharp Offset Printing, west of the site (apparently hydrologically downgradient); were screened for VOC vapors that may be attributable to the VOC contamination noted beneath the Site. The basement located immediately to the south of the Site, owned by Mr. Bruce Utley (see Figure 2 of our November 1994 report), was not accessible for this screening. The VOC vapor screening was conducted using a PID equipped with a 10.6 eV lamp capable of detecting most petroleum related VOC vapors.

No organic vapors were detected in the basement of Allied Automotive Parts.

PID readings of 2.5 to 3.1 parts per million (ppm) were obtained in the Garrows Store basement, but we were informed that a recent overfill of the fuel oil tank had released a small amount of fuel oil into the basement. It is our belief that these readings were attributable to that past overfill.

In the northeast corner of the basement of Sharp Offset Printing we obtained PID readings of up to 135 ppm from within two cracks in the concrete foundation wall. We were informed that a 7,500-gallon #2 fuel oil underground storage tank (UST) is present in this immediate area outside the wall.

The age of the UST is not known, but it is known to be more than 21 years old. It is likely that the readings obtained at this location are a function of the presence of this UST, and are not from the Site, which is approximately 60 feet away.

Groundwater samples were collected from each of the three monitoring wells associated with the Site. Samples were collected using bailers already dedicated to each of the wells in accordance with The Johnson Company's standard operating procedure SOP-JCO-008. A duplicate sample was collected from monitoring well number 3 (MW-3), and was labeled MW-4. The duplicate and a trip blank were submitted to Scitest Laboratory of Randolph, Vermont for analysis for quality assurance/quality control purposes. All samples were analyzed using Environmental Protection Agency (EPA) Method 8260.

Several VOCs indicative of petroleum and solvent contaminated groundwater were found in the groundwater samples, primarily from monitoring wells MW-2 and MW-3. The analytical results are summarized in Table 2. The complete laboratory report is attached.

Table 1 Summary of Groundwater Analytical Results							
ANALYTE	MW-1 (μg/l)	MW-2 (μg/l)	MW-3* (μg/l)	ENFORCEMENT STANDARD (µg/I)	MCL/HA (μg/l)		
Toluene	BPQL	44	111/101	2420	1000/-		
Ethylbenzene	BPQL	575	440/450	680	700/-		
Xylenes	BPQL	1011	1410/1480	400	10000/-		
Isopropylbenzene (syn.: Cumene)	BPQL	68	56/58	N/A	N/A		
n-Propylbenzene	BPQL	169	144/168	N/A	N/A		
1,3,5-Trimethylbenzene (syn.: Mesitylene)	BPQL	131	491/517	N/A	YADD		
1,2,4-Trimethylbenzene (syn.: pseudocumene)	2.1	1190	1570/1600	N/A	-N/A* Sipb		
Naphthalene	4.1	283	317/356	N/A	-/20		

#### Notes:

\*: These two numbers represent MW-3 sample/duplicate sample (MW-4 on laboratory report)

N/A: not applicable

MCL: maximum contaminant level for drinking water

HA: Vermont Health Advisory for drinking water (- = none indicated)

The data indicate that conditions have not appreciably changed since October 19, 1994, when the wells were first sampled.

Naphthalene and 1,2,4-trimethylbenzene were present at very low concentrations in MW-1, and were not present when the wells were last sampled. Toluene, however, was not present in MW-1, and it was present (4.8 ppb) in October 1994.

Two compounds, tert-butylbenzene (approximately 125 ppb) and n-butylbenzene (approximately 50 ppb) were present in MW-2 (tert-butylbenzene only) and MW-3 in October 1994, but were not detected during this round of sampling.

Based on the results of these tasks, we recommend that the wells be resampled in October 1995. We do not believe that any hazardous levels of petroleum related vapors are migrating from the Site to any of the basements that were screened with a PID during this investigation.

If you have any questions, please do not hesitate to call.

Sincerely,

THE JOHNSON COMPANY, INC.

Bradley A. Wheeler, CPSS

Senior Scientist

cc:

Ron Bell Alan Cram

### CLIENT:

The Johnson Company

ADDRESS:

100 State Street Montpelier, VT 05602

SITE:

Komer Pocket

ATTENTION: MATRIX:

Brad Wheeler Groundwater

PROJECT NO: DATE OF SAMPLE: DATE OF RECEIPT: DATE OF ANALYSIS: DATE OF REPORT:

LABORATORY NO:

5-0589 78611 03/14/95 03/14/95 03/23/95

03/31/95

**LABORATORY REPORT** 

PARAMETER				PQL	rams per liler (ppb)  PARAMETER		<del></del>	<del></del>	PQL	1
	2	3	4			2	3	4	. 4-	1
	MW-2	MW-3	MW-4			MW-2	MW-3	MW-4		
Dichlorodifluoromethane	BPQL	BPQL	BPQL	50	1,3-Dichloropropane	BPQL	BPQL	8PQL	50	
Chloromethane	BPQL	BPQL	BPQL	50	2-Hexanone	BPQL	BPQL	<b>BPQL</b>	500	1
Vinyl Chloride	8PQL	BPQ!.	BPQL	50	Dibromochloromethane	BPQL	BPQL	BPQL	50	
Bromomethane	<b>BPQL</b>	BPQL	BPQL.	50	1,2-Dibromomethane (EDB)	BPQL	BPQL	BPQL	50	
Chloroethane	BPQL	<b>BPQL</b>	BPQL	50	Chlorobenzene	BPQL	BPQL	<b>BPQL</b>	50	1
Trichlorofluoromethane	BPQL	BPQL	BPQL	50	1,1,1,2-Tetrachloroethane	BPQL	BPQL	BPQL	50	
1,1-Dichloroethylene	BPQL	BPQL	BPQL	. 50	Ethylbenzene	575	440	450	50	befor VOE
Acelone	BPQL	BPQL	BPQL	500	m & p-Xylene	917-	1410	1480-	100	** * * * * * * * * *
Methylene Chloride	BPQL	BPQL	BPQL	50 '	o-Xylene	94	BPQL	BPQL	100	- VGES
Methyl tertiary Butyl Ether	BPQL	8PQL	BPQL	50	Styrene	BPQL	BPQL	BPQL	50	400
t-1,2-Dichloroethylene	BPQL	BPQL	BPQL	50	Bromotom	BPQL	BPQL	BPQL	50	100
1,1-Dichloroethane	BPQL	BPQL	BPQL	50	leopropylbenzene	68	56	58	50	
o-1-2,-Dichloroethylene	BPQL	BPQL	BPQL	50	Bromobenzene	BPQL	BPQL	BPQL	50	
2, 2-Dichloropropane		BPQL	BPQL	50	1,2,3-Trichloropropane	BPQL	BPQL	BPQt.	50	1
Methyl Ethyl Kelone (2-But)	BPQL	BPQL	BPQL	500	1,1,2,2-Tetrachloroethane	BPQL	BPQL	BPQL.	50	1
Bromochloromethane	BPQL	BPQL	BPQL	50	n-Propyibenzene	169	144	168	50	i
Chloroform	BPQL	BPQL	BPQL	50	2-Chlorotoluene	BPQL	BPQL	BPQL	50	
1.1.1-Trichioroethane	BPQL	BPQL	BPQL	50	4-Chlorotoluene	BPQL	BPQL	BPQL	50	_
Carbon Tetrachloride	BPQL	BPQL	BPQŁ	50	1,3,5-Trimethylbenzene	131	491	517	50	14.0- JHR
1,1-Dichtoropropene	BPQL	BPQL	BPQL	50	tert-Butylbenzene	BPQL	BPQL	BPQL	50	
Benzene	BPQL	BPQL	BPQL	50	1,2,4-Trimethylbenzene	1190	1570	1600	50 -	20- UNA
1,2-Dichloroethane	BPQL	BPQL	BPQL	50	sec-Butylbenzene	BPQL	BPQL	BPQL	50	i
Trichloroethylene	BPQL	BPQL	BPQL	50	1,3-Dichlorobenzene	BPQL	BPQL	BPQL.	50	
1,2-Dichloropropane	BPQL	BPQL	BPQL	50	1,4-Dichlorobenzene	BPQL	BPQL	BPQL	50	Ī
Dibromomethane	BPQL	8PQL	BPQL	50	p-Isopropylloluene	BPQL	BPQL	BPQL	50	ļ .
Bromodichloromethane	BPQL	. BPQL	BPQL	<del>5</del> 0	1,2-Dichlorobenzene	BPQL	BPQL	BPQL	50	
cis-1,3-Dichloropropene	BPQL	BPQL	BPQL	50	n-Butylbenzene	BPQL	<b>BPQL</b>	BPQL	50	[
Methyl Isobutyl Ketone (4M2P)	BPQL	BPQt.	BPQL	500	1,2-Dibr-3-clpropane (DBCP)	BPQL	BPQL	BPQL	100	
Toluene	44	111	101	50	1,2,4-Trichlorobenzene	BPQL	BPQL	BPQL	50	Į
trans-1,3-Dichloropropene	BPQL	BPQL	BPQL	50 \	Hexachlorobutadiene	BPQL	BPQL	BPQL	50	į
1,1,2-Trichloroethane	BPQL	BPQL	BPQL	50	Naphthalene	283	317	356	50	VH4= 20 p
Tetrachloroethylene	BPQL	BPQL	BPQL	50 /	1.2.3-Trichlorobenzene	BPQL	BPQL	BPQL.	50	1 CO b

EPA Method 8260, SW-846, 3rd ed., Rev. 1, July, 1992. BPQL = Below Practical Quantitation Limit (PQL). page 1 of 2

oc: East Mountain Property Management, Ron Bell

below VUES

Respectfully submitted,

SCITEST, INC.

Roderick J. Lamothe **Laboratory Director** 

## LABORATORY REPORT

CLIENT: The ADDRESS: 100

The Johnson Company

100 State Street

Montpelier, VT 05602

SITE: ATTENTION:

MATRIX:

Komer Pocket Brad Wheeler

Brad Wheeler Groundwater LABORATORY NO:

PROJECT NO: DATE OF SAMPLE: DATE OF RECEIPT:

DATE OF ANALYSIS: DATE OF REPORT: 78611 03/14/95 03/14/95 03/23/95 03/31/95

5-0589



		All resums i	PQL	rams per liter (ppb)  IPARAMETER			PQL
ARAMETER		_	PQL	PARAMETER	1	5	
	1	5		<u> </u>	MW-1	Trip Blank	
	MW-1	Trip Blank			11144	71. <b>(</b> 7 <b>-</b> 1-1-1-1	
	BPQL	BPQL	1.0	1,3-Dichloropropane	BPQL	<b>BPQL</b>	1.0
Dichlorodifluoromethane		BPQL	1.0	2-Hexanone	BPQL	BPQL	10
Chloromethane	BPQL	BPQL	1.0	Dibromochloromethane	BPQL	BPQL	1.0
/inyl Chloride	BPQL	BPQL	1.0	1,2-Dibromomethane (EDB)	BPQL	BPQL	1.0
3romomethane	BPQL	BPQL	1.0	Chlorobenzene	8PQL	BPQL	1.0
Chloroethane	BPQL	BPOL	1.0	1,1,1,2-Tetrachloroethane	BPQL	BPQL	1.0
Trichlorofluoromethane	BPOL		1.0	Ethylbenzene	BPQL	BPQL	1.0
1,1-Dichloroethylene	BPQL	BPQL	10	m & p-Xylene	8PQL	BPQL	2.0
Acetone	BPQL	BPQL BPQL	1.0	o-Xylene	BPQL	BPQL	2.0
Methylene Chloride	BPQL		1.0	Styrene	BPQL	BPQL	1.0
Methyl tertiary Butyl Ether	BPQL	BPQL	1.0	Bromoform	BPQL	BPQL	1.0
-1,2-Dichloroethylene	BPQL	BPQL BPQL	1.0	Isopropylbenzene	BPQL	BPQL	1.0
1,1-Dichloroethane	BPQL		1.0	Bromobenzene	BPQL	BPQL	1.0
-1-2,-Dichloroethylene	BPQL	BPQL	1.0	1,2,3-Trichloropropane	BPQL	BPQL	1.0
2, 2-Dichloropropane	BPQL	BPQL	10	1,1,2,2-Tetrachloroethane	BPQL	BPQL	1,0
Methyl Ethyl Ketone (2-But)	BPQL	BPQL	1.0	n-Propylbenzene	BPQL	BPQL	1.0
Bromochloromethane	BPQL	BPQL BPQL	1.0	12-Chioroloiuene	BPQL	BPQL	1.0
Chloroform	BPQL		1.0	4-Chlorotoluene	BPQL	BPQL	1.0
1,1,1-Trichloroethane	BPQL	BPQL	1.0	1.3.5-Trimethylbenzene	BPQL	BPQL	1.0
Carbon Tetrachloride	BPQL	BPQL BBOL	1.0	tert-Butylbenzene	BPQL	BPQL	1.0
1,1-Dichloropropene	BPQL	BPQL	1.0	1,2,4-Trimethylbenzene	2.1	BPQL	1.0
Benzene	BPQL	BPQL	1.0	seo-Butylbenzene	BPQL	BPQL	1.0
1,2-Dichloroethane	BPQL	BPQL	1.0	1.3-Dichlorobenzene	BPQL	BPQL	1.0
Trichloroethylene	BPQL	BPQL BPQL	1.0	1,4-Dichlorobenzene	BPQL	BPQL	1.0
1,2-Dichloropropane	BPQL	BPQL	1.0	p-Isopropylloluene	BPQL	BPQL	1.0
Dibromomethane	BPQL	BPQL	1.0	1.2-Dichlorobenzene	BPQL	BPQL	1,0
Bromodichloromethane	BPQL	BPQL		n-Butylbenzene	BPQL	BPQL	1.0
cis-1,3-Dichloropropene	BPQL	BPQL	1.0	1,2-Dibr-3-dipropane (DBCP)	BPQL	BPQL	2.0
Methyl Isobutyl Ketone (4M2P)	BPQL	BPQL	10	1,2-Digr-3-dipropane (DBOF)	BPQL	BPQL	1.0
Toluene	BPQL	BPQL	1.0		BPQL	BPQL	1.0
Irans-1,3-Dichloropropene	<b>BPQL</b>	BPQL	1.0	Hexachlorobutadiene	4.1	BPQL	1.0
1.1.2-Trichioroethane	BPQL	BPQL	1.0	Naphthalene	BPQL	BPQL	1.0
Tetrachloroethylene	BPQL	BPQL	1.0	1,2,3-Trichlorobenzene	or ac	D1. Off	1.0